Ask Jon Eakes

WHAT IS A CANADIAN BREED HEAT PUMP?

Last Updated: Friday, March 29th, 2013, Created: Thursday, October 14th, 1999

Heat pumps, although not invented in the United States, were highly developed there for air conditioning. It was discovered that they could be operated in reverse and provide heat to houses in winter as well. For these reasons it is not surprising that certain design characteristics reflect the southern U.S. climate -- primarily the presence of most of the mechanical equipment on the outside of the house where it adds no heat to already overheated summer basements and can be easily serviced on a nice summer day.To sell U.S. heat pumps in Canada, they had to be slightly modified or they wouldn't even work. Oil pan heaters (like the crank case heater in your car) and defrost cycles were added to keep ice from accumulating. Basically, these U.S. machines were Canadianized in the advertising departments but not in the engineering departments. Then some companies began to market heat pumps with everything possible sheltered inside the basement. Besides eliminating unnecessary and energy wasting oil pan heaters, you are much more likely to convince a serviceman to help out on a dark, stormy winter's night. For a long time we had to say that outdoor compressors made no sense in our climate and systems with indoor compressors have become available. In the late 80's there was another evolution in heat pumps with Scroll compressors, which allowed us to put the compressor back outdoors with worrying about freezing. So a Scroll compressor outdoors, OK -- but regular compressor outdoors with a block heater -- not such a good idea because if the power goes out and the compressor freezes, when it comes back on, the valve pins may break.Be careful if you do cross border shopping or buy from contractors who do. Most major manufacturers will not honor warranties if the machine is not certified (and built or modified) for the Canadian climate. Make sure it has a CSA approval sticker, or don't buy it.

Keywords:
Heat Pump